

Claim Amendments

1. (canceled)

2. (canceled)

3. (currently amended) A method according to claim 1, wherein the W-CDMA receiver is for use in a communications system having a transmitter with, comprising:

despread a Common Pilot Channel (CPICH) channel in a spread-spectrum receiver, wherein the spread-spectrum receiver is adapted to receive a signal stream in space-time diversity transmission and the receiver comprises an equalization stage for chip level filtering of received chip, and wherein said despreading is carried out after said chip level filtering; and estimating the signal to interference ratio at least partially from despread CPICH symbols.

4. (original) A method according to claim 3, wherein a virtual space-time decoding is used on the CPICH channel in order to mimic data channel space-time transformation

5. (original) A method according to claim 3, wherein the received chips are oversampled at chip-level.

6. (currently amended) A receiver for use in a communications system, comprising:

an equalization stage for chip level filtering received chips, wherein the received chips are obtained from a signal stream in space-time transmit diversity transmission;

a despreading module for despreading a common pilot channel (CPICH) after said chip level filtering; and

an estimation module for estimating signal-to-interference ratio at least partially from despread CPICH symbols.

7. (original) A receiver according to claim 6, wherein the estimated signal-to-interference ratio is for use by a user equipment in the communications system to report its channel quality indicator (CQI).

8. (canceled)

9. (original) A receiver according to claim 6, wherein the communications system comprises a transmitter with space-time transmit diversity transmission.

10. (original) A receiver according to claim 9, wherein the received chips are over-sampled at chip level.

11. (currently amended) A W-CDMA spread-spectrum communications system comprising:

a receiver; and

a transmitter for transmitting a signal stream in space-time transmit diversity transmission to the receiver, the signal stream containing a chip stream in a common pilot channel (CPICH), wherein the receiver has at least one antenna to receive one or more chips in the chip stream; the receiver further comprising:

an equalization stage for chip level filtering the received chips;

a despreading module for despreading the common pilot channel after said chip level filtering; and

an estimation module for estimating signal-to-interference ratio at least partially from despread CPICH symbols.

12. (original) A communications system according to claim 11, wherein the estimated signal-to-interference ratio is for use by a user equipment in the communications system to report its channel quality indicator (CQI).

13. (canceled)

14. (original) A communications system according to claim 11, wherein the transmitter has two or more antennas for transmitting the signal stream in order to achieve space-time transmit diversity.

15. (original) A communications system according to claim 14, wherein the received chips are over-sampled at chip level.

16. (original) A communications system according to claim 14, wherein a virtual space-time decoding in the receiver is used on the CPICH in order to mimic data channel space-time transformation.

17. (currently amended) A ~~communications~~ communications device in a communications system, comprising:

an antenna; and

a receiver, operatively connected to the antenna, for receiving communication signals in space-time transmit diversity transmission, wherein the communication signals include a transmitted signal indicative of one or more chips in a chip stream in a common pilot channel (CPICH); and wherein the received signals include received chips, the receiver comprising:

an equalization stage for chip level filtering received chips;

a despreading module for despreading a common pilot channel (CPICH) after said chip level filtering; and

an estimation module for estimating signal-to-interference ratio at least partially from despread CPICH symbols.

18. (original) A communications device according to claim 17, wherein the estimated signal-to-interference ratio is used for reporting a channel quality indicator (CQI) to another component in the communication system.

19. (canceled)

20. (currently amended) A communications device according to claim 17, wherein the communications signals are transmitted [[in]] from a transmitter having two or more antennas for transmitting the signal stream in order to achieve the space-time transmit diversity transmission fashion.

21. (original) A communications device according to claim 17, comprising a mobile terminal.

22. (new) A communications system according to claim 11, comprising a W-CDMA communications system.

23. (new) A method according to claim 3, wherein the spread-spectrum receiver comprises a W-CDMA receiver.

24. (new) A spread-spectrum communications system comprising:

a receiver; and

means for transmitting a signal stream to the receiver in space-time transmit diversity transmission, the signal stream containing a chip stream in a common pilot channel (CPICH), wherein the receiver has at least one antenna to receive one or more chips in the chip stream; the receiver further comprising:

means for chip level filtering the received chips;

means for despreading the common pilot channel after said chip level filtering; and

means for estimating signal-to-interference ratio at least partially from despread CPICH symbols.

25. (new) A communications system according to claim 24, wherein the estimated signal-to-interference ratio is for use by a user equipment in the communications system to report its channel quality indicator (CQI).